

wherein said sintered ceramic substrate comprises nitride ceramic or carbide ceramic.

19. (New) The ceramic heater according to Claim 17,

wherein said sintered ceramic substrate has a thickness of 20 mm or less.

20. (New) The ceramic heater according to Claim 17,

wherein said sintered ceramic substrate has a disk-shape and a diameter exceeding  
200 mm.

21. (New) The ceramic heater according to Claim 17,

wherein said ceramic heater is used at a temperature of 150°C or higher.

22. (New) The ceramic heater according to Claim 17,

wherein said ceramic heater further comprises an electrostatic electrode or an RF  
electrode.

23. (New) The ceramic heater according to Claim 17,

wherein said heating element is a metal foil, a metal wire or a sintered body of metal  
particles.

24. (New) The ceramic heater according to Claim 17,

wherein the average grain diameter of a ceramic grain of said sintered ceramic  
substrate is 3  $\mu\text{m}$  or less.

25. (New) The ceramic heater according to Claim 17,

wherein the average grain diameter of a ceramic grain of said sintered ceramic substrate is 2  $\mu\text{m}$  or less.

26. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains oxygen.

27. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains 0.05 to 10 weight % of oxygen.

28. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains sulfur.

29. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains 0.05 to 200 ppm of sulfur.

30. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains an oxide.

31. (New) The ceramic heater according to Claim 17,  
wherein said sintered ceramic substrate contains 1 % by weight or less of an oxide of  
a rare earth element.

32. (New) A ceramic substrate having a conductor formed inside thereof for a  
semiconductor producing/examining device,  
wherein:

a ceramic layer including said conductor and the vicinity thereof and a ceramic layer located lower than said conductor exhibit a state of intergranular fracture at the time of fracture; and

a ceramic layer other than said ceramic layers exhibits a state of intragranular fracture at the time of fracture.

33. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate comprises nitride ceramic or carbide ceramic.

34. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate has a thickness of 20 mm or less.

35. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate has a disc-like shape and a diameter of 200 mm or more.

36. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate is used at a temperature of 150°C or higher.

37. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate has an electrostatic electrode or an RF electrode.

38. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said conductor is a metal foil, a metal wire, or a sintered body of metal particles.

39. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein the average grain diameter of a ceramic grain of said ceramic substrate is 3  $\mu\text{m}$  or less.

40. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein the average grain diameter of a ceramic grain of said ceramic substrate is 2  $\mu\text{m}$  or less.

41. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains oxygen.

42. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains 0.05 to 10 weight % of oxygen.

43. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains sulfur.

44. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains 0.05 to 200 ppm of sulfur.

45. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains an oxide.

46. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,

wherein said ceramic substrate contains an oxide of a rare earth element.

47. (New) The ceramic substrate for a semiconductor producing/examining device according to Claim 32,


which is used as a ceramic heater.

48. (New) An electrostatic chuck having an electrostatic electrode and a resistance heating element formed inside a ceramic substrate thereof,

wherein:

a ceramic layer including said electrostatic electrode and the vicinity thereof and a ceramic layer located lower than said electrostatic electrode exhibit a state of intergranular fracture at the time of fracture; and

a ceramic layer other than said ceramic layers exhibits a state of intragranular fracture at the time of fracture.



49. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate comprises nitride ceramic or carbide ceramic.

50. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate has a thickness of 20 mm or less.

51. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate has a disc-like shape and a diameter of 200 mm or  
more.

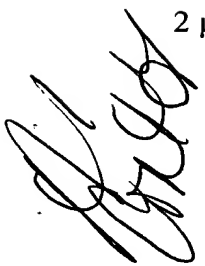
52. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate is used at a temperature of 150°C or higher.

53. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate has an RF electrode.

54. (New) The electrostatic chuck according to Claim 48,  
wherein said heating element is a metal foil, a metal wire, or a sintered body of metal  
particles.

55. (New) The electrostatic chuck according to Claim 48,  
wherein the average grain diameter of a ceramic grain of said ceramic substrate is  
3  $\mu\text{m}$  or less.

56. (New) The electrostatic chuck according to Claim 48,  
wherein the average grain diameter of a ceramic grain of said ceramic substrate is  
2  $\mu\text{m}$  or less.



57. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate contains oxygen.

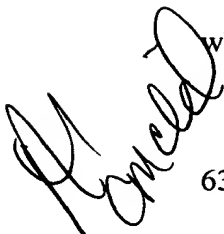
58. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate contains 0.05 to 10 weight % of oxygen.

59. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate contains sulfur.

60. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate contains 0.05 to 200 ppm of sulfur.

61. (New) The electrostatic chuck according to Claim 48,  
wherein said ceramic substrate contains an oxide.

62. (New) The electrostatic chuck according to Claim 48,

 wherein said ceramic substrate contains an oxide of a rare earth element.

63. (New) The electrostatic chuck according to Claim 48,  
which is used as a ceramic heater.--

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#### SUPPORT FOR THE AMENDMENT

Amended claim 17 is supported by the originally filed claims, and at lines 3 to 6 on page 29 in the specification. Claim 18 is supported at lines 11 to 14 on page 28. Claim 19 is supported at lines 31 to 32 on page 27. Claim 20 is supported at line 3 on page 30 and lines 6 to 7 on page 28. Claim 21 is supported at lines 23 to 24 on page 28. Claim 22 is supported at lines 7 to 11 on page 29. Claim 23 is supported at lines 17 to 32 on page 39. Claim 24 is supported by the originally filed claims. Claim 25 is supported by the originally filed claims. Claim 26 is supported by the originally filed claims. Claim 27 is supported at lines 23 to 25 on page 19. Claim 28 is supported by the originally filed claims. Claim 29 is supported by the originally filed claims. Claim 30 is supported at lines 29 to 30 on page 22. Claim 31 is supported at lines 3 to 9 on page 23. Claim 32 is the same as allowable Claim 15 as originally filed. Claim 33 is supported at lines 25 to 28 on page 61. Claim 34 is supported at lines 17 to 18 on page 68. Claim 35 is supported at line 35 on page 68 to line 6 on page 69. Claim 36 is supported at lines 23 to 24 on page 28. Claim 37 is supported at lines 7 to 11 on page 29. Claim 38 is supported at lines 17 to 32 on page 39. Claim 39 is supported by the originally filed claims. Claim 40 is supported by the originally filed claims. Claim 41 is supported by the originally filed claims. Claim 42 is supported at lines 23 to 25 on page 19. Claim 43 is supported by the originally filed claims. Claim 44 is supported by the originally filed claims. Claim 45 is supported at lines 8 to 13 on page 57. Claim 46 is supported at



lines 1 to 2 on page 11. Claim 47 is supported at line 32 on page 73 to line 1 on page 74. Claim 48 is supported by the originally filed claims. Claim 49 is supported at lines 25 to 28 on page 61. Claim 50 is supported at lines 17 to 18 on page 68. Claim 51 is supported at line 35 on page 68 to line 6 on page 69. Claim 52 is supported at lines 23 to 24 on page 28. Claim 53 is supported at lines 2 to 3 on page 70. Claim 54 is supported at lines 17 to 32 on page 39. Claim 55 is supported by the originally filed claims. Claim 56 is supported by the originally filed claims. Claim 57 is supported at lines 23 to 24 on page 65. Claim 58 is supported at lines 23 to 24 on page 65. Claim 59 is supported by the originally filed claims. Claim 60 is supported by the originally filed claims. Claim 61 is supported at lines 8 to 13 on page 57. Claim 62 is supported at lines 1 to 2 on page 11. Claim 63 is supported at lines 1 to 2 on page 29 and at lines 18 to 22 on page 80. No new matter is believed to be introduced by the above amendment.

#### REMARKS

Claims 1-16 are cancelled. Claims 17-63 are added and pending. Favorable consideration is respectfully requested.

At the outset, Applicants thank Examiner Koppikar for indicating that Claims 15 and 16 are allowable. New Claims 32 and 48 find support in original allowable Claims 15 and 16.

The rejection of Claims 1-14 under 35 USC §102(b) and/or §103(a) over JP 09-124383 (JP'383) to Tomohide, JP 11-111431 (JP'431) to Tomohide, JP 08-236603 (JP'603) to Kenji, and/or JP 06-191955 (JP'955) to Susumu is obviated by the cancellation of these claims. Further, new Claims 17-63 are neither disclosed or suggested by the above references as clarified by the following remarks.